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TEACHER SUPPLY AND DEMAND IN INDIANA

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INTRODUCTION

ORIGIN OF STUDY. This is the second report on teacher supply and demand in Indiana. The first study may be found in the September, 1930 issue of the Bulletin of the School of Education, Indiana University.¹ The Indiana University publication included the number of graduates of the Indiana colleges from teacher-training curricula for the year 1928-1929 and the employment of these graduates in 1929-1930. It also included the enrollments on teacher-training curricula for the year 1929-1930.

The current report is being made from data obtained in a manner similar to the method of attack in the first report. The other members of the committee did not have available funds to help with the study; conse-

quently, the material was forwarded to the writer, who has attempted to compile the data and make this report.

PURPOSE OF THE STUDY. Dr. Foster's statement of the purpose as given in last year's bulletin expresses the purpose of the study very clearly and definitely. "In dealing with the problem of teacher supply and demand in this state the following objectives have been brought before the Committee: first, to find how many and what kinds of teaching positions exist in Indiana; second, to learn to what extent the various positions are modified annually; third, to find to what extent the teacher-training institutions of this state meet the demands of the state; and fourth, to discover what adjustments in enrollments, guidance, et cetera, may be suggested by a more thorough knowledge of demand and supply."

¹I. O. Foster, et al, *A Study in Teacher Supply and Demand in Indiana*, Bulletin of the School of Education, Indiana University, Vol. VII, No. 1.

²Op. cit., p. 9.

SOURCE OF MATERIAL. The colleges of the state that are accredited by the State Board of Education for training teachers reported their enrollments and gave detailed information concerning the employment of their graduates. The present report includes the enrollments for the fall of 1930, the number of graduates for 1929-1930, and the employment of these graduates in 1930-1931. The next report, if the study is continued, should include the fall enrollments for 1931, the graduates of 1930-1931, and their employment in 1931-1932. The first report included a study of the subjects and their combinations as taught for the years 1927-1930 in all the high schools of the state. It also included a report on the new teachers of the state, giving the number employed in the various types of schools and the subjects and grades they were teaching. This information was taken from the *Indiana School Directory*, which is published by the State Department of Public Instruction. The *Directory* was not studied this year. If the work of this committee is continued, the data should be collected again at the end of another three year period.

METHOD OF ATTACK. The usual method for studying the supply and demand of teachers has been to obtain information from the public schools. If complete reports and wholly reliable information could be obtained there could be no objection to this procedure. Those who have worked with this problem know how difficult it is to get complete reports from public school officials. Reference to the paragraph giving the purpose of the study shows clearly that it is a problem involving the training of teachers. By going to the source

of the supply of teachers, the information obtained may be used to control to some extent the number of teachers and their preparation. Since the graduates of the teacher-training institutions of the state constitute the only source of supply it only remains for these colleges to "follow up" their graduates in order to supply reliable data upon which to base our conclusions concerning supply and demand. Indiana probably sends as many teachers out of the state as come in from outside colleges; consequently, this inter-state traffic in teachers does not affect the demand for Indiana-trained teachers.

In order to profit by studying teacher supply and demand it is necessary to find out how nearly the supply of teachers is meeting the demand of the public schools with respect to the number and the types of licenses granted. The concern is not with the past, but with the future. Knowledge of an existing surplus of teachers is of no significance unless it can be shown that the graduates of teacher-training courses are not being employed. Perhaps they are much better prepared and should displace some of those who have meager training and are not filling their positions satisfactorily. So long as approximately eighty per cent^{*} of these graduates, out of a possible ninety per cent available supply, are placed, the belief that we are training too many teachers is not supported by the facts. A more intensive study would probably show that some colleges are meeting the demands for certain types of positions better than others that do not guide their students into courses and subjects for

*Table XI, p. 183.

which there is a demand. The two years covered by this study and the one directed by Dr. Foster last year show that approximately eighty-five per cent of the available supply of teachers were employed as teachers. By following up each year with a study of the training and employment of the graduates from the teacher-training courses a balance between supply and demand could be maintained. Random reports for the fall of 1931 indicate an increase in enrollments in colleges and a decrease in the number of new teachers employed in the public schools. If these reports are true there is a trend towards an over-supply of teachers and teacher-training enrollments must be restricted within reasonable limits. A fifteen per cent surplus of available teachers does not appear to be too great. Employing officials should have a surplus of teachers to choose from and not be forced to employ the last of the available teachers. Out of the surplus there are certain to be some that employing officials will doubt their ability to teach school with sufficient success to warrant their employment as public school teachers.

ENROLLMENTS

The data on enrollments were obtained by means of reports from the teacher-training institutions of Indiana. A full report on the following items should supply a basis upon which to advise students concerning their choice of curricula and predict their prospects for obtaining positions in the public schools: (1) fall enrollments through a term of years showing the number enrolled in the first, second, third, and

fourth years; (2) the curricula on which they have registered; (3) the subject and subject combinations selected as majors; (4) the number of graduates from the various curricula; (5) the subjects the graduates have been required to teach; and (6) the number of graduates employed.

REQUIREMENTS FOR LICENSES. The State Board of Education under the authority of the license law of 1923 has control of the issuance of licenses. All teaching and administrative licenses are issued by the State Department of Public Instruction. No licenses are granted except to graduates of required curricula. Local authorities cannot employ a teacher who does not hold one of the state licenses. Permits to teach are not granted to undergraduates.

Elementary licenses in Indiana are granted only to those who complete two-year elementary curricula. Licenses for teaching and supervising the special subjects as found in Table II are granted to those who complete four-year courses in these subjects. At least forty per cent of the four years of work must consist of credit in one of the special subjects. Some related subjects may be included in the forty per cent.

The State Board of Education requires that graduates who expect licenses to teach in the high schools of the state must, if on regular college courses and not on special courses such as art, music, home economics, et cetera, choose at least two majors. The major in social studies or science usually consists of a group of subjects in social studies or science.

Requirements for regular high school licenses are as follows:

	Semester Hours	Quarter Hours
English.....	26	44
Mathematics.....	26	40
Foreign Languages.....	26	40
Science.....	26-36	40-68
Social Studies.....	26-36	40-60
Special Subjects.....	26	40
Permits for additional subjects.....	15	24

FRESHMAN ENROLLMENTS FOR YEARS 1926-1930. Figures are available upon which the trend in enrollments for all colleges in the state on the elementary, special supervisors, and regular high school curricula may be shown. The January, 1930 issue of *The Teachers College Journal* published by the Indiana State Teachers College, gives the fall enrollments for beginning freshmen only. The September, 1930 issue of the Bulletin of the School of Education, Indiana University, published under the direction of Dr. Foster gives the freshmen enrollments for 1929 and the 1930 figures are taken from the data collected for this study. It should be noted that the two reports for 1929 do not agree. This discrepancy is caused by the fact that Dr. Foster's report and the present study included all freshmen enrolled in the fall quarter or semester which results in larger numbers being reported.

ELEMENTARY LICENSE ENROLLMENTS. From *Teachers College Journal*: 1926, 1155; 1927, 964; 1928, 666; 1929, 523. From Indiana University Bulletin and the current study: 1929, 567; 1930, 673. There was a marked downward trend in enrollments from 1926 to 1929 with a decided increase for 1930.

SPECIAL LICENSE ENROLLMENTS. From *Teachers College Journal*: 1926, 334; 1927, 350; 1928, 390; 1929, 404. From Indiana University Bulletin and the current study: 1929, 591; 1930, 684. There was a marked

upward trend in enrollments from 1926 to 1930. The freshman class of 1926 graduated in 1930 at which time there were 366. If the graduates four years following 1930 increase in proportion to the increased enrollments from 1926 to 1930 the number of graduates in 1934 would be double that to 1930. The high percentage of graduates in 1930 as compared with the enrollments in 1926 is accounted for by teachers in the service coming back to college for degrees and by students on other curricula changing to the special license curricula. It is not likely that this proportion will be maintained.

REGULAR HIGH SCHOOL LICENSE ENROLLMENTS. From *Teachers College Journal*: 1926, 595; 1927, 598; 1928, 854; 1929, 889. From Indiana University Bulletin and the current study: 1929, 1060; 1930, 916. There has been a rather consistent increase in regular high school license enrollments although not so marked as in the special license curricula. There were 840 graduates in 1930 which is an indication that many old teachers entered college and obtained degrees and that many who were enrolled on elementary curricula changed to the college course. Students in liberal arts colleges very often do not decide to enter the teacher-training curricula until the sophomore or junior years.

TEACHER AND PUPIL CENSUS. The State Year Books published by the Secretary of State, in which will be found the reports of the State Superintendent of Public Instruction, show an increase of enumerated children from six to twenty-one years of age of about six thousand per year. The same reports show that the number of teachers is increasing approxi-

mately two hundred per year. Next year's report will probably not show an increase in the number of teachers due to the reduction in the number of teachers employed for the year 1931-1932. The accuracy of this statement cannot be substantiated until next year's data are at hand.

The figures show on the whole an increase in enrollments since 1926. Although, as previously stated, the supply of teachers has been absorbed in a fairly satisfactory manner, if the supply increases and the number of positions does not increase a larger surplus of teachers is the inevitable result.

ENROLLMENTS FOR THE FALL OF 1930. Tables I, II, and III show fall

INTERPRETATION. Table I is read as follows: There were 285 freshmen enrolled on the primary curriculum in the fall of 1930; 248 sophomores; 9 juniors; and no seniors; a total of 542. As stated before about 200 were not reported. The last column gives the total enrollments for the fall, 1929. The last two columns form a basis for comparisons. Taking into consideration the 200 primary students who were not reported there was a decided increase in 1930 as compared to 1929. The increase in the number enrolled on the four-year elementary curriculum is very significant. It is indicative of the fact that they expect to continue teaching in the elementary schools.

TABLE I. ELEMENTARY TEACHER-TRAINING ENROLLMENTS FOR THE FALL OF 1930, AND A COMPARISON OF THE TOTAL WITH THE TOTAL FOR THE FALL, 1929

Curricula	Freshman	Sophomore	Junior	Senior	Post Graduate	Total	
						1930-31	1929-30
Primary.....	285	248	9	.....	.....	542	548
Intermediate-Grammar.....	273	274	9	1	.....	557	490
Rural.....	110	41	4	.....	.....	155	80
Four-Year Elementary.....	5	9	24	14	.....	52	9
Total 1930-1931.....	673	572	46	15	.....	1306	1148
Total 1929-1930.....	567	550	23	8	.....	1148	.....

TABLE II. SPECIAL SUPERVISOR'S LICENSE ENROLLMENTS, FALL, 1930, AND A COMPARISON OF THE TOTAL WITH THE TOTAL FOR THE FALL, 1929

Curricula	Freshman	Sophomore	Junior	Senior	Post Graduate	Total	
						Fall 1930	Fall 1929
Agriculture.....	20	11	13	20	3	67	87
Art.....	47	37	39	44	3	170	100
Commerce.....	152	82	55	32	10	331	114
Home Economics.....	104	102	104	89	5	404	396
Industrial Arts.....	49	35	28	16	1	129	52
Music.....	103	98	93	113	3	410	411
Physical Education (Men).....	152	85	57	38	.....	332	332
Physical Education (Women).....	57	42	46	25	1	171	106
Total 1930-1931.....	684	492	435	377	26	2014	1598
Total 1929-1930.....	591	440	336	220	11	1598	.....

enrollments for 1930 for students on the elementary, special supervisors, and regular high school license curricula. The reports from the colleges were practically complete except for the enrollments on the elementary curricula. One large school is omitted. If reported, the primary enrollments based on last year's reports would have been increased by about 200 and the intermediate-grammar enrollments by about 100.

INTERPRETATION. Table II, as Table I, gives the enrollments for freshmen, sophomores, juniors, seniors and post-graduates for the fall of 1930. The figures for the fall, 1929 are given for purposes of comparison. The totals for both years for all freshmen are given at the bottom of the table and the totals for the several curricula are given in the column to the right of the table. The comparison shows decided increases

for all subjects except agriculture. The total for 1930 exceeds the total for 1929 by more than 400.

TABLE III. REGULAR HIGH SCHOOL MAJOR LICENSE ENROLLMENTS FOR THE FALL, 1930, COMPARED WITH THE FALL, 1929

	Sophomore	Junior	Senior	Post Graduate	Total
Fall 1930.....	916	896	903	32	2747
Fall 1929.....	916	712	788		2476

INTERPRETATION. There were enrollments as indicated in Table III on the high school license courses. The table shows an increase for each year except the sophomore year. The total increased by 271. The freshman enrollments were not complete.

ENROLLMENT BY MAJORS ON HIGH SCHOOL LICENSES. Tables IV, V, VI, and VII are intended to show the relative number of students who

cial subjects in high schools and not preparing to teach and supervise these special subjects in the grades

and high schools. When mentioned in this connection they require but twenty-four semester-hours or thirty-six quarter-hours of credit in the special subject.

INTERPRETATION. There were 31 sophomores who selected English as a first major, 194, as a second major, and 24 as a third major; making 249 in all who were preparing to teach English. The last column shows that

TABLE IV. NUMBER OF SOPHOMORES CHOOSING REGULAR HIGH SCHOOL TEACHING MAJORS

	Number of Students Choosing				Per cent majoring in each subject
	First Teaching Major	Second Teach- ing Major	Third Teach- ing Major	Total	
Agriculture.....		1		1	.087
Art.....	1	14	4	19	1.66
Commerce.....	8	31	4	43	3.77
English.....	31	194	24	249	21.88
Foreign Languages:					
French.....	30	81	18	129	11.33
German.....	2	29	1	32	2.81
Latin.....	35	28	6	69	6.06
Spanish.....	13	62	1	76	6.67
Home Economics.....	14	22	4	40	3.51
Industrial Arts.....	1	15	2	18	1.58
Library Science.....			2	2	.175
Mathematics.....	17	51	4	72	6.32
Music.....	11	25	2	38	3.33
Physical Education.....	9	26	8	43	3.77
Public Speaking.....	12	11		23	2.016
Science:					
Option I.....	9	21	1	31	2.72
Option II.....	5	13		18	1.58
Option III.....		3		3	.263
Option IV.....	1	9	4	14	1.23
Biology.....	5		2	7	.615
Botany.....					
Chemistry.....	2	10		12	1.05
Geography.....	1	6	4	11	.96
Physics.....	2	10	1	13	1.14
Physiology.....			3	3	.263
Zoology.....	2	1		3	.263
Social Studies:					
Option I.....	33	73	3	109	9.57
Option II.....	19	19	6	42	3.953
Option III.....	1		14	15	1.31
Total.....	264	755	119	1138	99.89

major in the various subjects that are included in the licenses and taught in the public high schools. Special subjects are included but in these tables they refer to students who were preparing to teach the spe-

21.88 per cent of the sophomores in the state were majoring in English. The English students without doubt were preparing to teach one or more other subjects.

TABLE V. NUMBER OF JUNIORS CHOOSING REGULAR HIGH SCHOOL TEACHING MAJORS

	Number of Students Choosing				Per cent majoring in each subject
	First Teaching Major	Second Teaching Major	Third Teaching Major	Total	
Agriculture.....					
Art.....	3	16	2	21	1.57
Commerce.....	13	19	4	36	2.70
English.....	34	234	19	287	21.53
Foreign Languages:					
French.....	26	71	12	109	8.17
German.....	3	39	2	44	3.30
Latin.....	29	38	5	72	5.40
Spanish.....	17	52	2	71	5.32
Home Economics.....	11	31	5	47	3.52
Industrial Arts.....	3	7		10	.750
Library Science.....					
Mathematics.....	25	62	7	94	7.05
Music.....	11	27	2	40	3.00
Physical Education.....	8	56	10	74	5.55
Public Speaking.....	10	18		28	2.10
Science.....					
Option I.....	10	30	1	41	3.07
Option II.....	22	23		45	3.37
Option III.....		10		10	.750
Option IV.....		1	3	4	.300
Biology.....	4	14	4	22	1.65
Botany.....	3	7		10	.750
Chemistry.....	6	11	4	21	1.57
Geography.....		6	2	8	.600
Physics.....		15	2	17	1.27
Physiology.....		6		6	.450
Zoology.....		6		6	.450
Social Studies.....					
Option I.....	65	67	3	135	10.12
Option II.....	23	39	3	65	4.875
Option III.....	1	8	1	10	.750
Total.....	327	918	93	1338	99.93

INTERPRETATION. There were 34 juniors who selected English as a first teaching subject, 234 as a second major, and 19 as a third major;

making a total of 287. The last column shows that the 21.53 per cent of the juniors were preparing to teach English.

TABLE VI. NUMBER OF SENIORS CHOOSING REGULAR HIGH SCHOOL TEACHING MAJORS

	Number of Students Choosing				Per cent majoring in each subject
	First Teaching Major	Second Teaching Major	Third Teaching Major	Total	
Agriculture.....					
Art.....		18	1	19	1.40
Commerce.....	9	20	2	31	2.29
English.....	26	235	13	274	20.31
Foreign Languages:					
French.....	33	57	7	97	7.19
German.....	5	24	2	31	2.29
Latin.....	45	43	10	98	7.26
Spanish.....	9	38	5	52	3.85
Home Economics.....	44	20	1	65	4.81
Industrial Arts.....		3		3	.222
Library Science.....			1	1	.074
Mathematics.....	23	50	3	76	5.63
Music.....	11	23	1	35	2.59
Physical Education.....	2	56	7	65	4.81
Public Speaking.....	4			4	.296
Science.....					
Option I.....	7	55	3	65	4.81
Option II.....	11	30	4	45	3.33
Option III.....		30	4	34	2.52
Option IV.....	5	50	18	73	5.41
Biology.....	2	3		5	.370
Botany.....	1	10	3	14	1.03
Chemistry.....	4	8	2	14	1.03
Geography.....	2	5	1	8	.593
Physics.....		10		10	.741
Physiology.....		7		7	.518
Zoology.....	2	5		7	.518
Social Studies:					
Option I.....	40	65	5	110	8.15
Option II.....	29	54	2	85	6.296
Option III.....	1	17	1	19	1.40
Total.....	815	936	98	1349	99.84

INTERPRETATION. There were 26 seniors who selected English as a first teaching subject, 235 who selected English as a second major, and 19 who selected English as a third major; making a total of 21.53 per cent who expected to receive licenses to teach English.

TABLE VII. NUMBER OF SOPHOMORES, JUNIORS AND SENIORS CHOOSING REGULAR HIGH SCHOOL TEACHING MAJORS

	Number of Students Choosing				Percentages			
	First Teaching Major	Second Teaching Major	Third Teaching Major	Total	First Teaching Major	Second Teaching Major	Third Teaching Major	Average
Agriculture.....	1	2	3	.....	.0384	.64	.07	
Art.....	4	48	7	59	.44	1.84	2.25	1.54
Commerce.....	30	70	10	110	3.31	2.68	3.22	2.87
English.....	91	663	56	810	10.04	25.46	18.0	21.20
Foreign Languages:								
French.....	89	209	37	335	9.82	8.03	11.93	8.76
German.....	10	92	5	107	1.10	3.53	1.61	2.80
Latin.....	109	109	21	239	12.03	4.18	6.77	6.25
Spanish.....	39	152	8	199	4.30	5.83	2.58	5.20
Home Economics.....	69	73	10	152	7.61	2.80	3.22	3.97
Industrial Arts.....	4	25	2	31	.44	.960	.64	.81
Library Science.....			3	3			.96	.07
Mathematics.....	65	163	14	242	7.17	6.25	4.51	6.33
Music.....	33	75	5	113	3.64	2.88	1.61	2.95
Physical Education.....	19	138	25	182	2.09	5.29	8.06	4.76
Public Speaking.....	26	29		55	2.86	1.10		1.43
Science:								
Option I.....	26	106	5	137	2.86	4.07	1.61	3.58
Option II.....	38	66	4	108	4.19	2.53	1.29	2.82
Option III.....		43	4	47		1.65	1.29	1.23
Option IV.....	6	60	25	91	.66	2.80	8.06	2.38
Biology.....	11	17	6	34	1.21	.652	1.93	.89
Botany.....	4	17	8	24	.44	.652	.96	.62
Chemistry.....	12	29	6	47	1.32	1.11	1.93	1.28
Geography.....	3	17	7	28	.33	.652	2.25	.70
Physics.....	2	35	3	40	.22	1.34	.96	1.04
Physiology.....		13	3	16		.499	.96	.41
Zoology.....	4	12		16	.44	.460		.41
Total Science.....	106	415	65	587	11.67	15.92	21.24	15.31
Social Studies:								
Option I.....	138	205	11	354	15.23	7.87	8.54	9.26
Option II.....	71	112	12	195	7.63	4.298	3.87	5.09
Option III.....	3	25	16	44	.33	.960	5.16	1.15
Total.....	906	2604	310	3820	99.91	99.89	99.81	99.82

INTERPRETATION. Table VII combines Tables IV, V, and VI and is read in the same manner. The last four columns give the per cent of students choosing the various subjects as first, second, and third majors and the average per cent majoring in each subject. Of the total number of students in the colleges of the state enrolled on teachers license curricula, 91 of them selected English as a first major, 663 as a second major, and 56 as a third major; making a total of 810 expecting to receive licenses to teach English. The first percentage column shows that 10.04 per

cent of the first majors were English, 25.46 per cent of the second majors were English, and 18 per cent of the third majors were English. Out of all the students enrolled on teachers courses an average of 21.20 per cent were expecting to teach English. Later on this percentage will be com-

pared with the percentage of teachers that actually teach English in the public schools.

TWO SUBJECT COMBINATIONS. Table VIII shows how the regular high school teaching majors were combined by the students in all the colleges of the state in the fall of 1930. This table does not show the majors for all students for the reason that some students had not decided definitely on their majors. The numbers in the table represent a very large per cent and may be considered reliable for comparative purposes.

INTERPRETATION. The first space is at the crossing point of English at the left and above showing that fourteen majored in English alone. The

bers may be identified as representing two-subject combinations as indicated by following the lines. It is necessary to add down and to the

TABLE VIII. TWO-SUBJECT COMBINATIONS FOR REGULAR HIGH SCHOOL SUBJECTS

English.....	14	40	109	157	128	105	206	133	23	30	33	115	14	6	9	9	1159
Mathematics.....	.....	40	20	17	9	35	12	3	54	6	18	21	10	1	32	14	311
Latin.....	.....	.....	15	1	22	16	13	4	4	2	1	7	2	1	4	2	312
French.....	.....	.....	9	9	21	9	6	2	15	..	1	14	3	1	4	2	218
German.....	.....	.....	4	4	2	1	1	1	1	1	1	1	1	1	1	1	309
Spanish.....	.....	.....	4	20	11	1	4	..	3	1	4	1	6	5	1	2	312
Social Studies Option I.....	.....	.....	21	3	3	3	11	1	4	..	..	..	5	2	3	1	204
Social Studies Option II.....	.....	.....	3	3	1	1	2	1	2	1	1	2	1	1	2	1	333
Social Studies Option III.....	.....	.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	336
Social Studies Option IV.....	.....	.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	336
Biology.....	.....	.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	196
Zoology.....	.....	.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	126
Botany.....	.....	.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	153
Chemistry.....	.....	.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	115
Physics.....	.....	.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	47
Geography.....	.....	.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	26
Public Speaking.....	.....	.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	55
Art.....	.....	.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	22
Commerce.....	.....	.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	79
Home Economics.....	.....	.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	174
Industrial Arts.....	.....	.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	47
Music.....	.....	.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	22
Agriculture.....	.....	.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	78
Physical Education Men.....	.....	.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	101
Physical Education Women.....	.....	.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	42
Any Other.....	.....	.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
Total.....	.....	.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4684

next space to the right shows English at the left and mathematics above showing forty who had selected English and mathematics as a two-subject combination. By reading across to the right and up the num-

right to obtain the totals for the various subjects.

FURTHER SOURCES OF SUPPLY. Table IX is inserted to show the number of teachers licenses issued by the state. The number varies consider-

ably from the number recommended by the teacher-training institutions. Eventually the numbers will be the same except for the group that comes from out-of-state colleges. At the present time there are many licenses issued on work completed prior to 1923 and a number of second grade "exchange" licenses converted to first grade, the holders of which were not required to graduate. These "exchange" licenses were issued in 1923 when all old licenses were exchanged for licenses of the new types as provided in the law of 1923 and were based to some extent on experience in teaching. These old licenses will disappear eventually. This excess of licenses does not indicate an additional supply of new teachers because a large per cent are teachers of considerable experience, and were probably in the service prior to obtaining their first grade licenses.

Table IX indicates the types of licenses in the first column. The figures heading the columns indicate the fiscal years from October 1 to September 30. The law of 1923 took effect on December 1, 1923. The 1924 report covered about nine months and of course included no conversions from second to first grade. In 1925 a total of 2548 licenses were issued. The first column under 1925 gives the number of graduates receiving licenses for the first time. The second column under "con" (conversions) shows the number who had previously held second grade licenses granted before graduation and in 1925 completed work for the first grade licenses. As stated before they may or may not be graduates. It is interesting to note that except for the year 1928 there has been a consistent increase in the total num-

TABLE IX. LICENSES ISSUED BY THE STATE, OCTOBER 1, 1924—SEPTEMBER 30, 1931*

LICENSES	Number of First Grade Licenses Issued											
	Oct. 1-Sept. 30 1924		Oct. 1-Sept. 30 1925		Oct. 1-Sept. 30 1926		Oct. 1-Sept. 30 1927		Oct. 1-Sept. 30 1928		Oct. 1-Sept. 30 1929	
	1st	Con. [†]	1st	Con. [†]	1st	Con. [†]	1st	Con. [†]	1st	Con. [†]	1st	Con. [†]
Superintendent.....	21	20	1	6	21	11	35	13	43	14	72	18
General Supervisor.....	4	1	1	17	1	2	3	3	3	3	72	21
High School Principal.....	3	3	9	26	3	33	41	20	26	59	31	116
Elementary Principal.....	204	3	6	2	6	9	21	5	5	7	76	8
Special Elementary.....	146	3	174	18	158	12	96	4	89	7	25	109
Special High School.....	721	549	722	1055	775	988	825	849	1331	105	14	24
Regular High School.....	143	143	19	211	55	359	68	882	69	458	1034	83
Junior High School.....	604	571	186	709	436	1080	400	897	387	112	1025	1547
Vocational.....	1758	82	7	3	20	10	7	87	9	13	18	617
TOTAL.....	1779	790	47	1889	47	1627	62	1550	1550	1298	1902	1631
GRAND TOTAL.....	1779	2548	2548	3526	4074	3526	4074	3526	4074	3526	4074	4039

* Taken from Reports of State Department of Education for the Year October 1, 1930 to September 30, 1931.
 † Con.—Conversion.

ber of licenses issued until 1930.

The large increase in superintendent's licenses issued in 1929 and 1930 was caused by a ruling of the Attorney General authorizing superintendent's licenses issued on the Indiana State Normal Life Diploma.

The elementary licenses reached a low mark in 1927 and 1928 due to a slump in enrollments in 1926, 1927, and 1928.

The special high school licenses (supervisors) have increased consistently each year up to 1930.

The regular high school licenses increased each year except in 1928 and 1931.

There is a decided drop in the year 1931 due perhaps to the disappearance of a large number of second grade conversions to first grade. The figures in the column headed 1931 include some conversions.

TYPES OF LICENSES. The number

siderable number of "exchange" licenses converted to first grade, the holders of which were not graduates. There were 3497 graduates who were recommended by the colleges of the state during the year 1928-1929. This number, however, included a large number of second grade licenses. Second grade licenses were not issued after November 1, 1929.

INTERPRETATION. The first column indicates the types of licenses. There were 840 graduates recommended for high school licenses in 1929-1930 and 1215 recommended in 1928-1929. The last column shows that the State Department issued 1635 high school licenses during the fiscal year 1929-1930.

EMPLOYMENT OF GRADUATES OF 1929-1930. The first section of this study consisted of a detailed report on the source of the supply of teachers as indicated by the enrollment of

TABLE X. LICENSES RECOMMENDED BY COLLEGES AND ISSUED BY THE STATE DEPARTMENT OF PUBLIC INSTRUCTION

Types of Licenses	Recommended by Colleges		Issued by State Department Oct. 1, 1929-Sept. 30, 1930
	1930	1929	
Rural	52	364	2059 (Elementary)
Intermediate-Grammar	659	831	
Primary	473	670	
Special Subjects	366	891	739
Regular High School	840	1215	1635
Total	2390	3497	4433

of the graduates for the year of 1929-1930 as reported by the teacher training institutions is shown in the first column of Table X. This number should correspond to the number of licenses issued to the group. There were 2390 graduates with the same number of licenses. There were 4433 first grade licenses issued by the State Board of Education which is about 2000 in excess of the number recommended by the colleges in 1930. The seeming discrepancy is caused by the fact that there were a large number from out of state and a con-

students on teacher-training curricula. It is necessary to look ahead from two to four years to determine the probable future supply of teachers.

This part of the study is concerned with the demand of the public schools for the product of the teacher-training institutions. It should be kept in mind that the graduates of 1930 came from the enrollments of from two to four years prior to 1930.

The information on graduates and their employment was obtained on the card which is presented here-

with. The reports from the various colleges were approximately ninety-five per cent complete. There were 2390 graduates reported. Six small schools failed to report. Reference to the State Year Book shows that these schools graduate approximately 100 teachers each year. These graduates constitute the only supply of teachers in Indiana except for those who graduate from colleges outside of Indiana and make application for Indiana licenses. There are no data on the number that come from out of state. It is assumed that Indiana sends as many out as come in from other states. Those that Indiana sends out are included in this study.

occupations. There were 456 men and 1234 women teaching in Indiana which is 74.14 per cent and 69.82 per cent respectively of the 1929-1930 graduates employed. If the per cent of those employed out of state is added to the per cent of those who taught in the state the total per cent of employment for 1929-1930 is 82 per cent and for 1930-1931 it is 79.31 per cent. When it is taken into consideration that about ten per cent of the graduates were not available because of (1) marriage among the women, (2) obtaining more attractive positions in other lines of work, (3) entering institutions of higher learning, and (4) some not teaching for various other reasons, the per

Kinder Prim.	Eng- lish	Math.	Latin	French	Ger- man	Span- ish	Soc.Sci Opt. I	Soc.Sci Opt. II	Soc.Sci Opt.III	Bi- ology
<hr/>										
Pri- mary	College reporting									
	Name of graduate									Botany
	Occupation of graduate									
	Where teaching:— Town or school									Zo- ology
Inter- Gram.	County									
	State									Phys- ics
Rural	Years previously taught									
	Course from which graduated:—Kind.-Prim. Prim.									Chem- istry
	Inter-Gram.... Rural... Reg. Col.... Spec. Subj. 4-yr.... Spec. Subj. 2-yr....									
Jr. H.S.	Use "L" for license and "T" for teaching in margin									
	Agri.	Health	Public Speak.	Lib. Science	Phy. Ed.	Music	Ind. Arts	Home Ec.	Com- merce	Art
										Physi- ology
										Geog- raphy

EMPLOYMENT OF GRADUATES

The next problem is to find out how many of the 2390 who graduated in 1929-1930 and received licenses were employed during the year 1930-1931. Table XI indicates the occupations of men and women and the percentages as distributed among the

cent of available teachers who were not employed was not in excess of ten or fifteen per cent. It should be noted that the "unemployed" and "unknown" when added equal less than ten per cent. The table shows a higher per cent of employment among the men.

TABLE XI. EMPLOYMENT OF GRADUATES

Occupations	1930-1931 Numbers			1930-1931 Percentages			1929-1930 Percentages Total
	Men	Women	Total	Men	Women	Total	
Teaching in Public Schools in Indiana...	456	1234	1690	74.14	69.56	70.28	7582
Teaching in Public Schools of Other States...	60	156	216	9.75	8.85	9.03	6.22
Teaching in Colleges...	1	1	2	.16	.05	.08	.66
In School...	26	46	72	4.22	2.58	3.00	3.56
Employed in Occupations Other Than Teaching...	15	57	72	2.43	3.21	3.00	4.63
Unemployed...	24	103	127	3.90	5.80	5.31	5.93
Unknown...	31	178	209	5.03	10.00	8.74	3.17
Deceased...	2	—	2	.32	—	.08	—
Total...	615	1775	2390	—	—	—	—

INTERPRETATION. The first column classifies the occupations of the graduates of 1929-1930 showing what they were doing in 1930-1931. There were 456 men teaching in Indiana and 60 teaching out of state. The number occupied in other ways will be found in the second column. The three columns with the heading "1930-1931 percentages" indicates the per cent occupied according to the items in the first column. A total of 70.28 per cent were teaching in Indiana in 1930-1931; 9.03 per cent were teaching out of state; .08 per cent were teaching in colleges; 3 per cent were in school, et cetera. The percentages for the graduates for the year 1928-1929 and employed in 1929-1930 are given in the last column.

primary and intermediate-grammar are valid for rural schools but are not inter-changeable without a permit from the state.) A large per cent of the primary graduates are teaching primary grades. This is not true of intermediate-grammar graduates.

EMPLOYMENT OF GRADUATES ON SPECIAL CURRICULA. Table XIII lists the special subjects in the first column, the number of graduates receiving licenses in the second, the number teaching in the third, the number teaching the subject in which they majored in the fourth, the number teaching their majors alone in the fifth, and the number not teaching in the sixth column. The last column shows the per cent of employment for each. It will be noted that

TABLE XII. EMPLOYMENT OF ELEMENTARY GRADUATES, 1930-1931

	Licenses Issued	Teaching Rural	Teaching Primary	Teaching Intermediate-Grammar	Not Teaching	Per Cent Employed
Rural...	52	33	6	5	8	85
Intermediate-Grammar...	659	100	91	362	106	69
Primary...	473	7	287	61	118	75
Total...	1184	140	384	428	232	80

EMPLOYMENT OF GRADUATES OF TWO-YEAR ELEMENTARY CURRICULA. Table XII shows fifty-two graduates on the rural curriculum with thirty-three teaching rural schools, six teaching primary, five teaching intermediate-grammar grades, and eight not teaching. (The rural license is legal for teaching in all grades. The

the per cent of employment ranges from seventy-two to ninety-six. Commerce, music, industrial arts, and physical education offer the best opportunities.

ADDITIONAL SPECIAL SUBJECTS TAUGHT BY SPECIAL TEACHERS. Special teachers or supervisors are often required to teach additional subjects.

TABLE XIII. EMPLOYMENT OF SPECIAL COLLEGE GRADUATES, 1929-1930

Subjects	Number of Graduates	Number Teaching	Number Teaching Major	Number Teaching Major Alone	Number not Teaching	Per Cent Teaching
Agriculture.....	19	14	13	11	3	73.68
Art.....	22	17	16	15	5	77.27
Commerce.....	54	52	52	39	2	96.29
Home Economics.....	86	62	60	23	24	72.09
Industrial Arts.....	32	27	26	22	5	84.37
Music.....	109	102	97	52	7	93.73
Physical Education Men.....	23	18	18	13	5	78.26
Physical Education Women.....	21	19	17	15	2	90.47
Total.....	366	311	299	190	53	85.00

The combinations may result from a demand from the school or may occur because the teacher holds the additional license. The only subject combinations that occur often enough to form the basis of giving advice to students in training are home economics combinations with English, physical education, and biology and music combinations with art, English, and home economics. The proportion of music combined with art is particularly large.

EMPLOYMENT OF GRADUATES OF REGULAR COLLEGE COURSES. The lowest per cent of employment was found in the group of graduates of the regular college curriculum. Out of approximately 840 graduates, 177 were not teaching. Sixty-seven per cent were teaching. This low percentage is probably caused by the fact that many who are enrolled on the regular college course are not thinking seriously of teaching. Some get the license as an insurance against the failure of other plans. They use the degree thus obtained as a background for other professions. All of these contingencies operate to overcrowd the teaching profession in this department.

SUBJECT COMBINATIONS IN REGULAR COLLEGE SUBJECTS ON LICENSES AND BEING TAUGHT. The tables of regular college subject combinations which follow should not be confused with the other tables that relate to

the special subjects. When special subjects have been discussed, reference has been made to those who held special supervisor's licenses granted on approximately forty-eight semester-hours or seventy-two quarter-hours of work in the special field and were teaching and supervising the special subjects. The majors in regular college subjects even though art, commerce, home economics, industrial arts, music, and physical education are mentioned, refer to twenty-four semester-hour or thirty-six quarter-hour majors in subjects that are to be taught in the high schools and not for supervision in the grades and high schools.

The following tables are intended to serve as an aid in guiding students into the most favorable subject combinations. The license combinations with their frequencies are given at the left and the teaching combinations with their frequencies are given at the right. These tables will show how nearly the license combinations correspond to the teaching combinations. Under art it is found that there were twenty-three licenses in art and music and that there were twenty teaching art and music. Four of those teaching art as stated in item four at the beginning of the table did not hold licenses in art, evidently teaching art on permits, leaving sixteen of the twenty-three who had licenses in art and music.

The arrangement of teachers' schedules in the high schools so that they will be teaching only the subjects in which they are licensed is a very serious problem. Art and music is a popular combination both in colleges and the high schools. On the other hand there were fifteen who chose art and English as majors, whereas only three were teaching art and English with the possibility that the three might have held permits in English.

The students evidently had been influenced by considerations other than the prospects for teaching this combination. Art students may have found English an attractive subject, they may have found that their daily programs worked out better with English or that the number of hours required for the English licenses was less than for other subjects. At any rate art and English seem to have been a poor choice. Outside of the combination of art and music the chances for obtaining a position to correspond to the license combinations are not very propitious.

Each table will give the number who had licenses in a subject and the number of those licensed who obtained positions teaching the subject in which they held licenses, the number not teaching at all, and the num-

ber teaching other subjects but not the one for which their licenses were issued. There are always a few who teach subjects without licenses. Evidently they were teaching on permits. Permits were granted last year on ten semester-hours or sixteen quarter-hours of credit in the subject to be taught. Next year the requirement will be fifteen semester-hours or twenty-four quarter-hours. The holders of permits must of course have had licenses in other subjects.

Tables XIV to XXIX are arranged in such form as will make possible the comparison of subject combinations found on licenses issued to the graduates of the 1930 classes in the state and the subject combinations taught by this group to whom the licenses were issued. The four items preceding each table indicate the number of persons licensed and teaching or not teaching the several subjects.

Table XIV gives in the left hand column the number who received licenses in art but had no second major. The column to the right gives the number teaching art alone. The table continues with the subjects that are combined with art on licenses and the subjects that are being taught in combinations with art.

TABLE XIV. ART COMBINATIONS WITH OTHER MAJORS

Number of persons licensed in art and teaching art.....	34
Number of persons licensed in art but not teaching at all.....	6
Number of persons licensed in art and teaching other subjects but not teaching art.....	14
Number of persons teaching art but not licensed in art.....	4

Licenses Combinations	Teaching Combinations
Art alone	3
Art with:	6
Commerce	1
English	15
Home Economics	5
Languages:	
French	1
Latin	2
Music	23
Science	1
Social Studies	3
Number with Art Licenses	44
	Number teaching Art
	28

TABLE XV. COMMERCE COMBINATIONS WITH OTHER MAJORS

Number of persons licensed in commerce and teaching commerce.....	32
Number of persons licensed in commerce but not teaching at all.....	4
Number of persons licensed in commerce and teaching other subjects but not teaching commerce.....	11
Number of persons teaching commerce but not licensed in commerce.....	9

License Combinations	Teaching Combinations
Commerce with:	
Art	Commerce alone
English	Commerce with:
Home Economics	Art
Languages:	English
French	Home Economics
Latin	Industrial Arts
Mathematics	Languages:
Music	Latin
Physical Education	Mathematics
Science	Music
Social Studies	Physical Education
Number of licenses in Commerce	Science
47	Social Studies
	Number teaching Commerce
	41

TABLE XVI. ENGLISH COMBINATIONS WITH OTHER MAJORS

Number of persons licensed in English and teaching English.....	165
Number of persons licensed in English but not teaching at all.....	102
Number of persons licensed in English and teaching other subjects but not teaching English.....	135
Number of persons teaching English but not licensed in English.....	19

License Combinations	Teaching Combinations
English alone	English alone
English with:	English with:
Art	Art
Commerce	Commerce
Home Economics	Home Economics
Industrial Arts	Languages:
Languages:	French
French	Latin
German	Spanish
Latin	Mathematics
Spanish	Music
Library Science	Physical Education
Mathematics	Public Speaking
Music	Science
Physical Education	Social Studies
Public Speaking	
Science	
Social Studies	
Number with English licenses	Number teaching English
402	184

TABLE XVII. HOME ECONOMICS COMBINATIONS WITH OTHER SUBJECTS

Number of persons licensed in home economics and teaching home economics.....	50
Number of persons licensed in home economics but not teaching at all.....	13
Number of persons licensed in home economics and teaching other subjects but not teaching home economics.....	14
Number of persons teaching home economics but not licensed in home economics.....	9

License Combinations	Teaching Combinations
Home Economics with:	Home Economics alone
Art	Home Economics with:
Commerce	Art
English	Commerce
Languages:	English
French	Languages:
Latin	Latin
Library Science	Mathematics
Mathematics	Music
Music	Physical Education
Physical Education	Science
Science	Social Studies
Social Studies	
Number with licenses in Home Economics	Number teaching Home Economics
77	59

TABLE XVIII. INDUSTRIAL ARTS COMBINATIONS WITH OTHER SUBJECTS

Number of persons licensed in industrial arts and teaching industrial arts.....	28
Number of persons licensed in industrial arts but not teaching at all.....	3
Number of persons licensed in industrial arts and teaching other subjects but not teaching industrial arts.....	3
Number of persons teaching industrial arts but not licensed in industrial arts.....	6

License Combinations	Teaching Combinations
Industrial Arts with:	Industrial Arts alone
English	Industrial Arts with:
Mathematics	Commerce
Physical Education	Mathematics
Science	Physical Education
Social Studies	Science
Number with licenses in Industrial Arts	Social Studies
34	Number teaching Industrial Arts
	34

TABLE XIX. FRENCH COMBINATIONS WITH OTHER SUBJECTS

Number of persons licensed in French and teaching French.....	9
Number of persons licensed in French but not teaching at all.....	18
Number of persons licensed in French and teaching other subjects but not teaching French.....	13
Number of persons teaching French but not licensed in French.....	3
License Combinations	Teaching Combinations
French alone	French alone
French with:	French with:
Art	English
Commerce	Languages:
English	Latin
Home Economics	Spanish
Languages:	Mathematics
Latin	Physical Education
Spanish	Social Studies
Mathematics	
Music	
Physical Education	
Public Speaking	
Science	
Social Studies	
Number of licenses in French	Number teaching French
40	12

TABLE XX. GERMAN COMBINATIONS WITH OTHER SUBJECTS

Number of persons licensed in German and teaching German.....	0
Number of persons licensed in German and not teaching at all.....	1
Number of persons licensed in German and teaching other subjects but not teaching German.....	1
Number of persons teaching German but not licensed in German.....	1
License Combinations	Teaching Combinations
German with:	German alone
English	German alone
Latin	Mathematics
Number with licenses in German	Number teaching German
3	1

TABLE XXI. LATIN COMBINATIONS WITH OTHER SUBJECTS

Number of persons licensed in Latin and teaching Latin.....	70
Number of persons licensed in Latin but not teaching at all.....	16
Number of persons licensed in Latin and teaching other subjects but not teaching Latin.....	19
Number of persons teaching Latin but not licensed in Latin.....	4
License Combinations	Teaching Combinations
Latin with:	Latin alone
Art	Latin with:
Commerce	Art
English	Commerce
Home Economics	English
Languages:	Home Economics
French	Languages:
German	French
Spanish	Mathematics
Mathematics	Music
Music	Physical Education
Physical Education	Science
Public Speaking	Social Studies
Science	
Social Studies	
Number with licenses in Latin	Number teaching Latin
105	74

TABLE XXII. SPANISH COMBINATIONS WITH OTHER SUBJECTS

Number of persons licensed in Spanish and teaching Spanish.....	3
Number of persons licensed in Spanish but not teaching at all.....	5
Number of persons licensed in Spanish and teaching other subjects but not teaching Spanish.....	2
Number of persons teaching Spanish but not licensed in Spanish.....	1

License Combinations	Teaching Combinations
Spanish with:	Spanish alone
English	Spanish with:
French	English
Latin	French
Mathematics	Social Studies
Number with licenses in Spanish	Number teaching Spanish
10	4

TABLE XXIII. LIBRARY SCIENCE COMBINATIONS WITH OTHER SUBJECTS

Number of persons licensed in library science and teaching library science.....	0
Number of persons licensed in library science but not teaching at all.....	3
Number of persons licensed in library science and teaching other subjects but not teaching library science.....	0
Number of persons teaching library science but not licensed in library science.....	0

Licenses Combinations	Teaching Combinations
Library Science with:	
English	1
Home Economics	1
Science	1
Number with licenses in Library Science... .	3
	(None)

TABLE XXIV. MATHEMATICS COMBINATIONS WITH OTHER SUBJECTS

Number of persons licensed in mathematics and teaching mathematics.....	88
Number of persons licensed in mathematics but not teaching at all.....	31
Number of persons licensed in mathematics and teaching other subjects but not teaching mathematics.....	37
Number of persons teaching mathematics but not licensed in mathematics.....	21

Licenses Combinations	Teaching Combinations
Mathematics alone	23
Mathematics with:	
Commerce	5
English	85
Home Economics	3
Industrial Arts	5
Languages:	
French	5
Latin	18
Spanish	1
Music	1
Physical Education	5
Science	68
Social Studies	42
Number with licenses in Mathematics ...	156
	Number teaching Mathematics
	109

TABLE XXV. MUSIC COMBINATIONS WITH OTHER SUBJECTS

Number of persons licensed in music and teaching music.....	38
Number of persons licensed in music but not teaching at all.....	5
Number of persons licensed in music and teaching other subjects but not teaching music.....	16
Number of persons teaching music but not licensed in music.....	5

Licenses Combinations	Teaching Combinations
Music alone	5
Music with:	
Art	20
Commerce	1
English	14
Home Economics	3
Languages:	
French	1
Latin	3
Mathematics	1
Science	2
Social Studies	8
Number with licenses in Music	59
	Number teaching Music
	43

TABLE XXVI. PHYSICAL EDUCATION COMBINATIONS WITH OTHER SUBJECTS

Number of persons licensed in physical education and teaching physical education.....	21
Number of persons licensed in physical education but not teaching at all.....	7
Number of persons licensed in physical education and teaching other subjects but not teaching physical education.....	7
Number of persons teaching physical education but not licensed in physical education.....	58

Licenses Combinations	Teaching Combinations
Physical Education with:	
Commerce	5
English	7
Home Economics	2
Industrial Arts	4
Languages:	
French	1
Latin	2
Mathematics	5
Science	10
Social Studies	9
Number with licenses in Physical Education 35	Number teaching Physical Education ...
	74

TABLE XXVII. PUBLIC SPEAKING COMBINATIONS WITH OTHER SUBJECTS

Number of persons licensed in public speaking and teaching public speaking.....	1
Number of persons licensed in public speaking but not teaching at all.....	2
Number of persons licensed in public speaking and teaching other subjects but not teaching public speaking.....	0
Number of persons teaching public speaking but not licensed in public speaking.....	2

LICENSE COMBINATIONS	TEACHING COMBINATIONS
Public Speaking with:	Public Speaking with:
English 3	English 3
French 1	
Latin 1	
Number with licenses in Public Speaking.. 3	Number teaching Public Speaking 3

TABLE XXVIII. SCIENCE COMBINATIONS WITH OTHER SUBJECTS

Number of persons licensed in science and teaching science.....	80
Number of persons licensed in science but not teaching at all.....	46
Number of persons licensed in science and teaching other subjects but not teaching science.....	74
Number of persons teaching science but not licensed in science.....	19

LICENSE COMBINATIONS	TEACHING COMBINATIONS
Science alone 5	Science alone 12
Science with:	Science with:
Art 1	Commerce 1
Commerce 2	English 13
English 60	Home Economics 7
Home Economics 12	Industrial Arts 5
Industrial Arts 8	Languages:
Languages:	German 1
French 2	Latin 6
Latin 7	Mathematics 40
Spanish 2	Music 1
Library Science 2	Physical Education 22
Mathematics 68	Social Studies 22
Music 2	
Physical Education 10	
Social Studies 55	
Number with licenses in Science 200	Number teaching Science 99

TABLE XXXIX. SOCIAL STUDIES COMBINATIONS WITH OTHER SUBJECTS

Number of persons licensed in social studies and teaching social studies.....	144
Number of persons licensed in social studies but not teaching at all.....	80
Number of persons licensed in social studies and teaching other subjects but not teaching social studies.....	94
Number of persons teaching social studies but not licensed in social studies.....	17

LICENSE COMBINATIONS	TEACHING COMBINATIONS
Social Studies alone 21	Social Studies alone 24
Social Studies with:	Social Studies with:
Art 3	Art 1
Commerce 12	Commerce 6
English 158	English 59
Home Economics 8	Home Economics 8
Industrial Arts 15	Industrial Arts 5
Languages:	Languages:
French 11	French 4
Latin 21	Latin 15
Spanish 1	Spanish 1
Library Science 1	Mathematics 22
Mathematics 42	Music 3
Music 7	Physical Education 26
Physical Education 9	Science 23
Science 55	Number teaching Social Studies 161
Number with licenses in Social Studies 318	

DISTRIBUTION OF MAJORS. Colleges should have some knowledge of the distribution of majors within their groups of college students. Except for the special subjects, students are required to major in two and sometimes three subjects or subject groups. If the figures are available showing the percentage of teachers in the high schools that teach art, commerce, et cetera, it will be possible to control to some extent the

percentage of graduates that major in these same subjects.

In Table XXX the first column shows the percentage distribution of the subjects among those enrolled in colleges during the fall of 1930, the second column the percentage distribution of the subjects among the graduates of 1930, and the third column the percentage distribution of the subjects among the teachers who were teaching these subjects in

the public high schools of the state. For example, about twenty-three per cent of the enrolled students of 1930 were majoring in English, about twenty-seven per cent of the graduates of 1930 majored in English, and only twenty per cent of the teachers were teaching English in 1930-1931.

It is true that some colleges are better prepared to train teachers in certain lines and some do not train teachers in all subjects. However, reference to this table should be a valuable help in advising students in their choice of majors.

Table XXX may be made use of

maintained for enrolled students and graduates receiving licenses. Reference to Table XXX shows that the per cent of students enrolled in English and receiving licenses in English greatly exceeds 19.94 per cent, the per cent teaching English. The enrollments are also too high in French, German, and Spanish. The per cent of enrolled students should be higher in art, commerce, home economics, industrial arts, mathematics, music, and physical education. Social studies shows a proper balance. It is interesting to note that the per cent of students enrolling in French, Ger-

TABLE XXX. PERCENTAGE TABLE SHOWING DISTRIBUTION OF MAJORS

Subjects	Percentage Enrolled	Percentage Licensed	Percentage Teaching
Agriculture.....	.07		
Art.....	1.54	2.88	3.04
Commerce.....	2.87	8.07	4.44
English.....	22.63	26.29	19.94
Foreign Languages:			
French.....	8.76	2.62	1.30
German.....	2.80	.13	.10
Latin.....	6.25	6.87	8.02
Spanish.....	5.20	.65	.43
Home Economics.....	3.97	5.04	6.39
Industrial Arts.....	.81	2.22	3.86
Mathematics.....	6.33	10.20	11.81
Music.....	2.95	3.86	4.66
Physical Education.....	4.76	2.29	8.02
Science.....	15.31	18.08	10.73
Social Studies.....	16.50	20.80	17.44

by comparing the percentage of enrolled students in a subject such as English, and the percentage of grad-

man, and Spanish is much greater than the per cent that complete majors and receive licenses in these sub-

TABLE XXXI. NUMBER AND PERCENTAGE OF EMPLOYMENT

	1929-1930 Licenses	1930-1931 Teaching	Per Cent Employed
Art.....	44	28	63.63
Commerce.....	47	41	87.23
English.....	402	184	45.77
Foreign Languages:			
French.....	40	12	30.00
German.....	2	1	50.00
Latin.....	105	74	70.48
Spanish.....	10	4	40.00
Home Economics.....	77	59	76.62
Industrial Arts.....	34	34	100.00
Mathematics.....	156	109	69.87
Music.....	59	43	72.88
Physical Education.....	35	74	211.40
Science.....	200	99	49.50
Social Studies.....	318	161	50.63

uates receiving licenses in English to the percentage of those graduates who actually teach English. There were 19.94 per cent teaching English. This percentage should be

objects. The reverse is true of some of the other subjects.

PERCENTAGE OF EMPLOYMENT IN REGULAR COLLEGE SUBJECTS. Table XXXI shows in the first column the

number of graduates who were licensed in the various subjects and in the second column the number who were teaching these same subjects. By comparison of the figures in these two columns the percentage of employment for each subject has been found. There were 402 who held licenses in English with 184 teaching English, an employment percentage of about forty-seven per cent. It should be kept in mind that this will not check with the employment figures in other tables because teachers may hold licenses in two or three subjects and be teaching but one. However, the percentages are very significant because the higher percentages indicate better chances for positions.

CONCLUSIONS

A. The chief values to be derived from the data presented are the uses that may be made of it by the colleges of the state.

(1) Students may be directed into the curricula that offer the best opportunities for positions. (See Tables XII, XIII, XXX, and XXXI.)

(2) Students preparing to teach in the high schools may be advised of the most common subject combinations which offer the least opportunities for positions. (See Tables XXX and XXXI.)

(3) Colleges may be advised in advance of any considerable increase in the surplus of trained teachers. (See per cent of employment Table XI.)

(4) Knowing the trends in enrollments and the size of the surplus of teachers the colleges may raise or lower standards in order to decrease or increase the supply of teachers.

B. The State Board of Education may use the data as a basis for modi-

fication of their rules to meet changing conditions.

(1) Increasing or decreasing the number of colleges accredited for training teachers to meet the demands for public school teachers.

(2) The adequacy of the license law and the efficacy of the curricular requirements to meet conditions as they exist in the public schools may be determined.

(3) A study of the number of elementary graduates teaching in grades not covered by their licenses, presumably on "permits" will help determine the necessity for granting "permits."

(4) A study of graduates teaching subjects in the high schools of the state without licenses will help determine the necessity for issuing "permits" for the subject and help to determine scholastic standards required for "permits."

(5) Standards for teaching in the elementary schools have been raised recently to two years training and in the high schools to four years training. The trends in enrollments on the several curricula and the existing surplus of unemployed graduates forms a basis upon which to determine the possibility of a further raise in standards.

(6) Restrictions might be imposed on college students changing to four year teacher training curricula late in their college courses thus making it impossible to guide them into advisable subjects and subject combinations. Many of them are not able to meet the full requirements.

(7) College graduates from out-of-state institutions are often granted "permits" for a year pending the meeting of the requirements of the Indiana standards. An increasing

surplus would make the granting of these "permits" unnecessary.

C. A study of the data leads to the following rather definite conclusions.

(1) There is evidence of an increasing surplus of teachers.

(2) The increase in elementary enrollments will augment the surplus of elementary teachers.

(3) There is a high percentage of employment of teachers and supervisors of special subjects which would indicate that the increasing surplus may be absorbed at least temporarily.

(4) The growing surplus of regular high school teachers is unwarranted. Too many have subject combinations that make their placement difficult if not impossible. The surplus could be reduced by requiring college students to choose their majors earlier in their college courses and requiring that their teaching majors cover broader fields.

(5) Some subjects are taught very rarely. Fewer students should choose such subjects for teaching majors. French, German, Spanish, English, and social studies are illustrations.

Around The Reading Table

Dramatics by Pearle LeCompte, Assistant Professor of Speech, Evansville College, Evansville Indiana. (New York: A. S. Barnes and Company, 1931. Pp. xiv, 162.)

The need of this little book is daily apparent at this time, when there is everywhere an increasing interest in amateur dramatics, Kenneth MacGowan, in his recent survey, *Footlights Across America*, points out that only one-third of the high schools of America have courses in the drama. This means that the majority of the high schools are carrying on their dramatic work through extra-curricular activities and that they are directed almost altogether by unprepared leaders. It is to help meet this obvious need that Miss LeCompte offers her book.

In the first chapter of *Dramatics* the author says, "This small book is prepared for the inexperienced sponsors and directors of dramatic activities. . . . Its purpose is to emphasize fundamentals of various phases of drama, to point the way toward creative methods, and to suggest materials and sources for the unspecialized leader at the present time."

The author develops her material under the following four divisions:

Part I. The Why of Dramatics. The significance of school dramatics.

Part II. The What of Dramatics. In this section she discusses the choice and types of material, types of occasions, and definitely outlines the work of the various committees of the organization.

Part III. The How of Dramatics. Among some of the things discussed under this head are: the problem of casting of parts, how to produce both visual and auditory effects, and how to direct a performance.

Part IV. The Where of Dramatics. "Anywhere! Preferably a location, indoors, or out, where something of aesthetic distance can be maintained by the audience."

From the above outline, we see that the practical value of the book is evident. But this guidebook does more than furnish an immediate help for the beginner; it contains suggestive bibliographies which, if read, will form a basis for the future study of sound and creative methods of directing.

—Ethel May Daum
Assistant Professor of English.

Simplified Home Geography Activities Book by DeForest Stull, Teachers College, Columbia University, and Erwin J. Raisz, Columbia University. (Chicago: A. J. Nystrom and Company. 1931. Pp. 120.)

The book is so designed that it may be used as a textbook as well as an activities book as it presents sufficient material for a year's work in home geography in either the third or fourth grade. The style is easy, intimate, and should be interesting to children. The type is large and the paper without glare, which insures safety to children's eyesight.

An Outline of the History of Europe, 1500 to 1848, by Henry Wilson Littlefield, Head of History Department, Orange, Massachusetts. (New York: Barnes and Noble, Inc. 1931. Pp. 136, vi.)

An outline of the history of Europe for the period stated in the title with maps. May be used as a syllabus for a course.

Students' Guide to Efficient Study by Lulla Cole Pressey, Assistant Professor, Ohio State University, and Jessie Mary Ferguson, Associate Professor, American University. (New York: Richard R. Smith, Inc. 1931. Pp. 39.)

A concise guide to help beginning college students study.

Preparing the Research Paper, A Handbook for Undergraduates, by R. Morel Schmitz, Instructor in English, Washington University. (New York: Richard R. Smith, Inc. 1931. Pp. 94.)

A book that is most useful for the beginner in research work and which is an aid to any worker in a field of research.

Federal Relations to Education, Report of National Advisory Committee on Education. Parts I and II. (Washington, D. C.: 744 Jackson Place.)

The first part of the report shows the committee findings and recommendations made following these findings. The second part presents the tables and charts made in the study.

The Florida Program of Curriculum Revision, General Plans and Organization, (Tallahassee, Florida: State Department of Public Instruction.)

Study Course for Virginia State Curriculum Program. (Richmond, Virginia: Division of Purchase and Printing, State Board of Education.)

High-School Libraries in Illinois, by Arthur W. Clevenger and Charles W. Odell, Uni-

versity of Illinois Bulletin, No. XXIX, No. 4. (Urbana, Illinois: University of Illinois.)

Provisions for Mentally Atypical Pupils by Charles W. Odell, University of Illinois Bulletin, Vol. XXIX, No. 6. (Urbana, Illinois: University of Illinois.)

List of Educational Research Studies in City School Systems, No. 2, United States Department of the Interior, Office of Education Circular No. 42, prepared by Edith A. Wright. (Washington, D. C.: Department of the Interior, Office of Education.)

"Teacher Demand and Supply," *Research Bulletin of the National Education Association*, Vol. IX, No. 5. (Washington, D. C.; National Education Association.)

NEW TESTS RECEIVED:

Iowa Silent Reading Test, Forms A and B by H. A. Greene, A. N. Jorgensen, and V. H. Kelley. (Yonkers-on-Hudson, New York: World Book Company.)

Shepherd English Test, Form A, by J. W. Shepherd. (Boston: Houghton Mifflin Company.)

Sangren-Reidy Instructional Test in Arithmetic, Grades 2 to 8, Inclusive, by R. V. Sangren and Ann Reidy. (Bloomington, Illinois: Public School Publishing Company.)

Magruder, Chambers, and Clinton American Civics and Government Test, Form A. and B., by F. A. Magruder, M. Chambers, and R. J. Clinton. (Bloomington, Illinois: Public School Publishing Company.)

Stewart-Ashbaugh Physics Test Form I and II, by A. W. Stewart and E. J. Ashbaugh. (Bloomington, Illinois: Public School Publishing Company.)

Patterson Test or Study Exercises on Constitution of the United States by Raymond G. Patterson. (Bloomington, Illinois: Public School Publishing Company.)

Achievement Test in Mechanical Drawing by Harry M. Wright. (Bloomington, Illinois: Public School Publishing Company.)